RS-7

2 WAY SYSTEMS
REMOTE ENGINE STARTING SYSTEM
INSTALLATION INSTRUCTIONS

INTRODUCTION

CONGRATULATIONS on your choice of a "Cool Start" System with Data Port Technology for direct connection to bypass module by Crimestopper Security Products Inc. This booklet contains the information necessary for installing your remote starter system. If any questions arise, contact your installation dealer or Crimestopper Security Products Inc. at the Tech Support number below.

DISCLAIMER*:*
This installation book is designed for the installer or individual with an existing understanding of automotive electrical systems, along with the ability to test and connect wires for proper operation. To ease installation, we suggest that you ***READ THIS MANUAL*** *before beginning your installation. This book is provided as a GENERAL GUIDELINE and the information contained herein may differ from your vehicle. Crimestopper Security Products, Inc. and its' vendors shall not be liable for any accident resulting from the use of this product. This system is designed to be professionally installed into a vehicle in which all systems and associated components are in perfect working condition.*

TECHNICAL SUPPORT: (800) 998-6880
Monday - Friday 8:00am - 4:30pm Pacific Std. Time
Web Site: www.crimestopper.com
E-mail: tech-support@crimestopper.com

CRIMESTOPPER SECURITY PRODUCTS, INC.
1770 S. TAPO STREET, SIMI VALLEY, CA. 93063

This device complies with FCC Rules part 15. Operation is subject to the following two conditions: (1) This device may not cause harmful interference, and (2) This device must accept any interference that may be received, including interference that may cause undesired operation. The manufacturer is not responsible for any radio or TV interference caused by unauthorized modifications to this equipment. Such modification could void the user's authority to use the equipment.

REV 02-2009

TABLE OF CONTENTS

Pre-Installation Considerations……..2
Installation Cautions & Warnings……3
Wiring……..3-7
Wiring High-Current Wiring…….8
Power Door Lock Wiring..……..9-10
Smart Tachless, Tach Reference, Tach Finder, & Timed Crank Modes……11-14
Diesel Glow Plug Delay..……15
Options Programming ……15-20
Transmitter / Transceiver Programming……21-22
Troubleshooting "Before You Call" Section……22
Manual Transmission Mode……23
Jumper PIN Diagram……24
Antenna Diagram……25
Low Current Plug……26
High Current Plug……27

PRE-INSTALLATION CONSIDERATIONS

BEFORE BEGINNING, check all vehicle manufacturer cautions and warnings regarding electrical service (AIR BAGS, ABS BRAKES, ENGINE / BODY COMPUTER AND BATTERY).

PLAN OUT YOUR INSTALLATION and determine most suitable locations for all components to be placed. These components include: the module itself, valet/program button, possible relays, and antenna/receiver (RS-1, RS-3 and RS-4 only, the RS-00 model does not include antenna or remotes.) Allow enough wire to create a service loop with strain relief, should servicing be required. This will also allow easier access and mounting.

DAMAGE to the CoolStart unit resulting from incorrect installation or failure to follow guidelines stated in this book will not be covered under warranty and will be subject to repair or replacement charges.

USE A VOLT OHM METER to test and locate all connections. Test Lights can damage a vehicle's computer systems.

ADDITIONAL PARTS, which are not included with this unit, may be needed for your particular vehicle. These items may include extra relays or Anti-Theft System Bypass modules.

INSTALLATION CAUTIONS & WARNINGS

FOR SAFETY REASONS, DO NOT INSTALL in vehicles with MANUAL TRANSMISSIONS.** If accidentally left in gear, a remote started vehicle could become a self-propelled threat to life and property.

DO NOT extend the Remote start ignition harness length. Mount the module so that main harness reaches all ignition switch wiring. Extending these wires could result in poor or improper performance.

DO NOT route any wiring that may become entangled with brake, gas pedals, steering column or any other moving parts in the vehicle.

DO NOT exceed the rated output current of any circuit on the Remote start module. Failure to observe this warning will result in damage to the unit not covered under warranty.

DO NOT remote start the vehicle in a closed garage! Make sure that the garage door is open or there is adequate ventilation. Failure to observe this rule could result in injury or death from poisonous Carbon Monoxide fumes.

WIRING

YELLOW WHITE: (-) HORN CHIRP HONK OUTPUT

Connect to the LOW CURRENT Negative Horn Trigger wire usually located near the steering column. If the vehicle horn circuit requires 12V, then a relay is required. RELAY WIRING: Connect the Yellow/White wire to terminal #85, connect relay terminals #86 and #87 to 12V constant power. Connect terminal #30 to the 12V positive Horn activation wire.

BLACK: MAIN SYSTEM GROUND

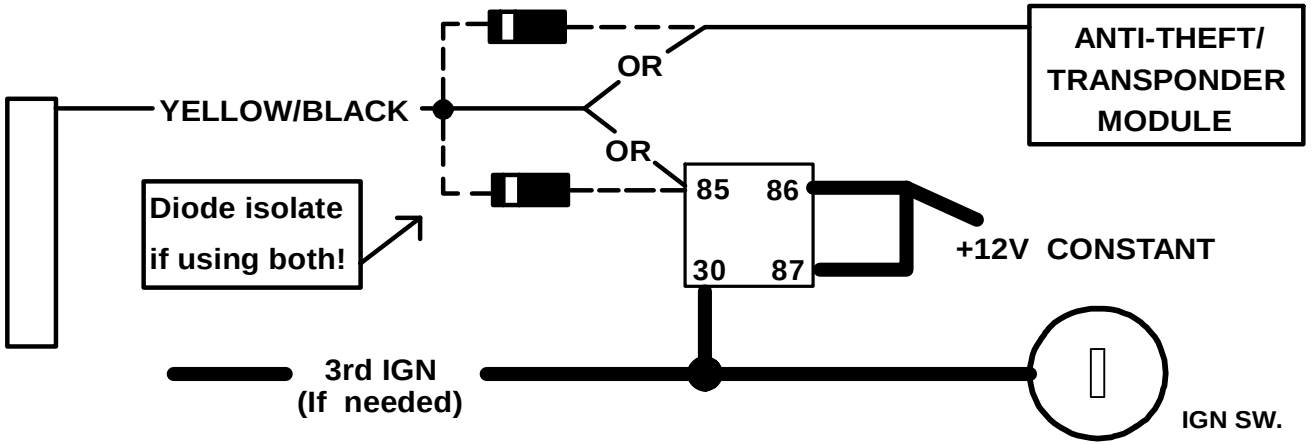
Connect to chassis metal of the vehicle. An existing bolt or screw may provide an adequate ground, or drill a small hole, scrape away paint and attach using a sheet metal screw & star washer. This wire must be connected to a proper ground or undesirable and inconsistent operation will occur. Do not use Factory ground locations.

YELLOW BLACK: (-) IGNITION OUTPUT -or- ANTI-GRIND/STARTER DISABLE OUTPUT

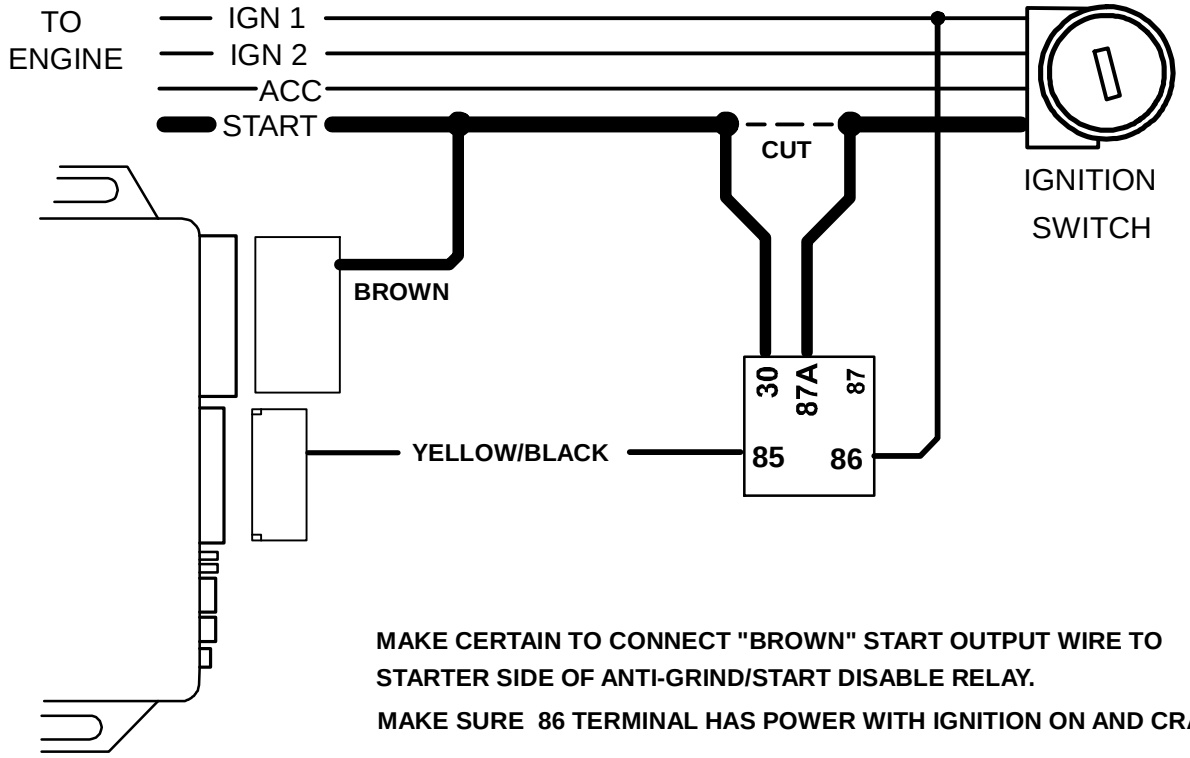
This negative output wire is programmable and can function two different ways. It can be used as a Negative Ignition output for GM Anti-theft and Transponder Bypass modules, or it can be programmed to function as an Anti grind/Starter Disable output. As a Negative Ignition wire, this wire turns on when the remote start button is pressed and stays on through the duration of the remote start. As an Anti grind/Starter disable this wire activates when the Lock button on the remote is pressed and during remote start. When using this wire for an Anti grind/Starter disable, an optional Relay is needed to interrupt the Starter circuit. The starter disable circuit adds an anti-theft feature to this remote start system and prevents accidental grinding of the starter if key is turned too far after a remote start. See diagrams on NEXT PAGE.

WIRING

YELLOW BLACK FOR NEGATIVE IGNITION OUTPUT: (Relay and/or Module not included)



ANTI-GRIND/STARTER DISABLE OUTPUT: (Relay not included)



MAKE CERTAIN TO CONNECT "BROWN" START OUTPUT WIRE TO STARTER SIDE OF ANTI-GRIND/START DISABLE RELAY.

MAKE SURE 86 TERMINAL HAS POWER WITH IGNITION ON AND CRANK

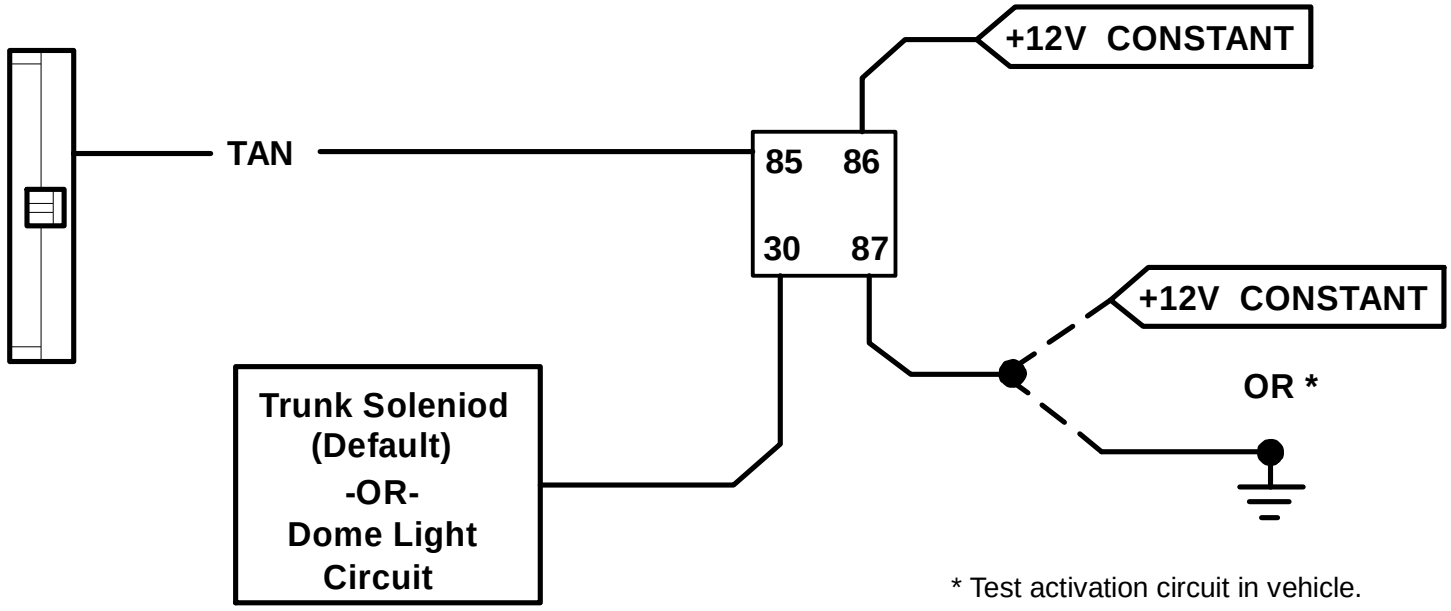
WIRING

TAN: (-) AUX OUTPUT (TRUNK POP) or DOME LIGHT ILLUMINATION OUTPUT
This output is programmable for 3 modes of operation. See Programming Option #9 Section.

1. 30 second Dome Light output.
2. Momentary ½ second output (Default).
3. Momentary Push and Hold. The output stays on until Transmitter button is released.

Note: Some vehicles like Lexus and Toyota require a 2 to 3 second output for the Trunk Pop to operate. This output is selectable for Momentary ½ second (default) or a Momentary Press and Hold function.

TRUNK OUTPUT or DOME LIGHT



* Test activation circuit in vehicle. Connect to+12V for Positive circuits or Ground for Negative circuits. Relay not included.

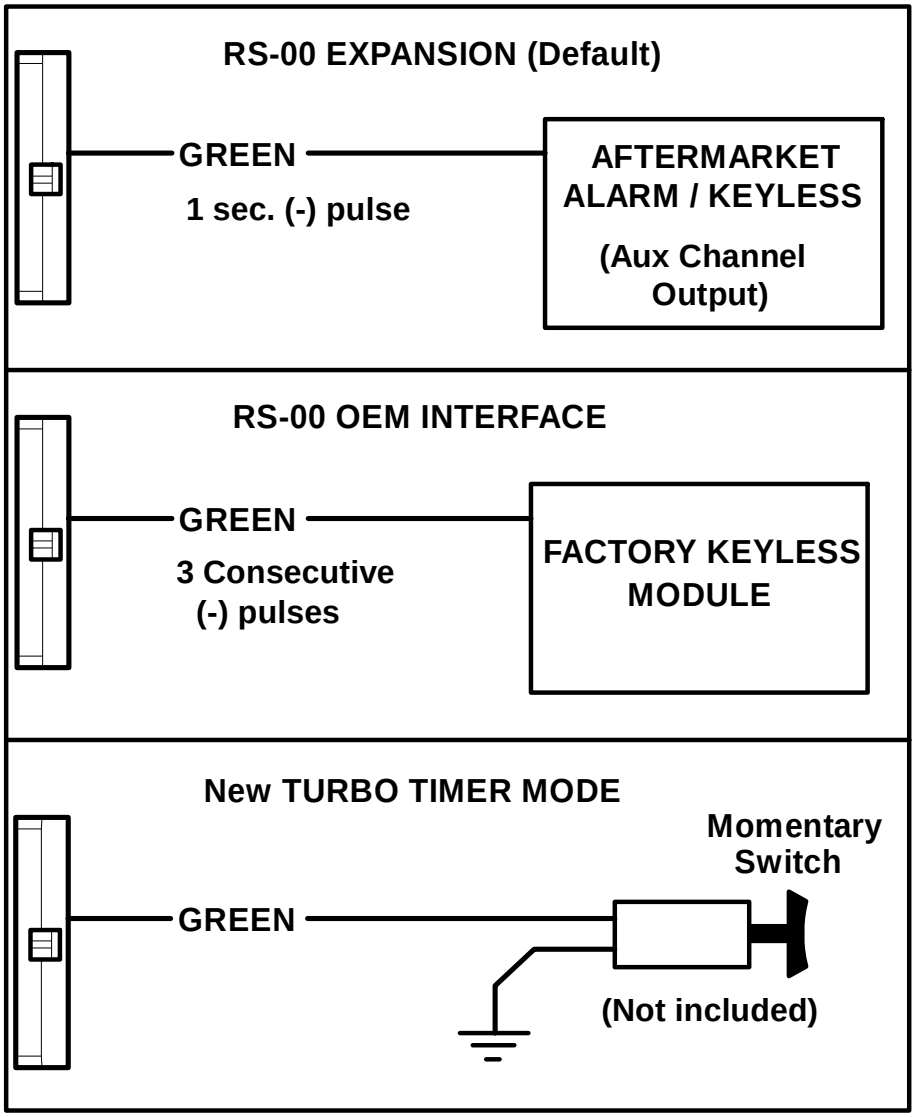
WIRING

GREEN: (-) START ACTIVATION INPUT, OEM INTERFACE or TURBO TIMER INPUT
See descriptions & diagrams below.

Mode (1) [Default (-) Neg. Start Activation] This wire allows a host (or parent) alarm's or keyless entry system to activate a Remote Start by sending a 1-Second Negative signal to the Green input wire to trigger a remote engine start or stop. Connect the Green wire to the host system's Auxiliary channel output wire.

Mode (2) [Alternate OEM Interface] This mode allows the system to Remote Start or Stop when 3 successive Negative pulses are sent to the Green input wire. Connect the Green input wire to the Negative lock signal wire of the factory system. If your Factory OEM system does not have this type of signal, then a relay is required.

TURBO TIMER INPUT [3 Modes, Option #22] This wire allows the system to keep a vehicle running for 1-5 minutes [selectively] after removing the key. This mode requires the use of a momentary switch that is not included with the kit. Connect a 2-pole momentary switch with one side to chassis Ground and the other side to the Green input wire. If you own a turbo or turbo diesel vehicle, you can now allow the CoolStart system to keep your engine running for 1-5 minutes after exiting/locking your vehicle to cool-down without the need for an external Turbo Timer.



NOTE: The turbo timer button will also trigger a remote start if it is inadvertently pressed when the vehicle is not running. Please note this when installing the button and choose a location out of harm's way.

WIRING

GRAY: (-) NEGATIVE HOOD PIN SWITCH REQUIRED FOR PROGRAMMING
Connect the Gray wire to a switch that is at ground when the hood is open. If an existing switch is not available, then we recommend one to be installed. When this wire is grounded, the remote start is inhibited. The unit will not attempt to start if hood is open. The hood pin is also used for Option programming.

PINK: NEGATIVE GLOW PLUG
Connect Pink wire to indicator circuit that shows a (-) Signal while the WAIT TO START LAMP is on. When this wire is used, the system will wait until light turns off before attempting a remote start.

PURPLE: (12V) BRAKE RESET
Connect the Purple wire to the side of brake pedal switch that shows 12 volts ONLY when pedal is depressed. This is the wire that turns off the remote start once the driver's key is in the Ignition and turned to the ON position.

ORANGE BLACK: (-) OEM DISARM OUTPUT
This wire provides a Ground pulse to disarm the vehicles' Factory anti-theft system prior to a Remote Start. Connect this wire to the vehicles' anti-theft disarm wire. This wire is sometimes found coming off the Driver's door key switch or at the Factory Anti-theft control module. This wire may not be needed if Factory Security only requires a door unlock pulse.

ORANGE: (-) OEM REARM OUTPUT
This wire provides a ground pulse to rearm the vehicles' FACTORY anti-theft system after a timed-out or aborted remote start. Connect this wire to the vehicles' anti-theft rearm wire or to the door pin circuit depending on your requirements. This wire may be needed to pulse the door pin circuit on vehicles with retained accessory power.

WHITE: 12V or (-) NEGATIVE PARKING LIGHT OUTPUT:

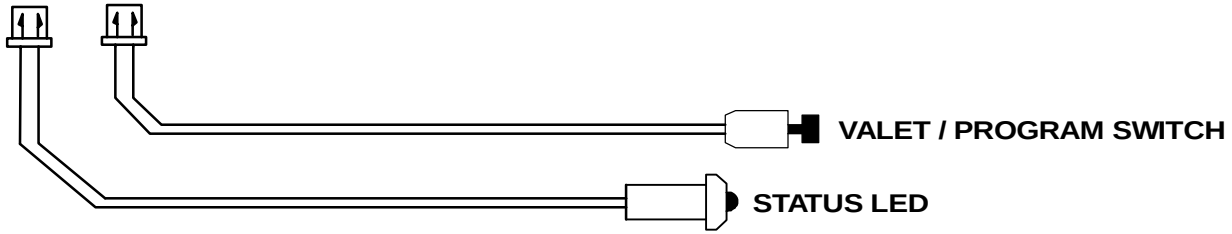
Connect to vehicle parking light circuit at the back of light switch or if this is not possible, connect directly to one of the parking lights at the front of the vehicle. If your vehicle has a multiplex lighting system that requires a (-) Negative parking light output, then open the access door on the top of the module and move the jumper. See Jumper Pin section. Some European vehicles require separate left and right circuits. Use a dual relay or diodes to isolate the output. Note the current limit on the Negative parking light output. You may require an external relay to prevent damage to the unit.

(1) Default parking light output is 12 volts.
(2) Use an external relay for vehicles that draw excess current from extra running lights, light bars, or trailers. Parking light output is limited to (+) 10 amps or (-) 500 mA only.

RED WHITE: TACHOMETER INPUT
When installing the system in Tach mode, this wire must be connected to a valid source of AC voltage. This wire allows the unit to sense the engine running and control the starter motor.

PROGRAM OVERRIDE SWITCH: 2 PIN PLUG (REQUIRED FOR PROGRAMMING & LEARNING REMOTES)
This switch is used for programming features, transmitters, valet mode, and to override the optional starter disable (if installed) in the event of a non-operating remote control.

LED: 2 PIN PLUG OPTIONAL
The LED is used as a VALET/PROGRAMMING indicator and it will also FLASH for use as security deterrent when the optional ANTI-GRIND/STARTER DISABLE output is programmed.



WIRING: 6-PIN HIGH-CURRENT CONNECTOR

BROWN: 12V STARTER OUTPUT 30A:
Connect to circuit in the vehicle that has power ONLY while the STARTER MOTOR is CRANKING.
GRAY: 12V ACCESSORY OUTPUT 30A:
Connect to circuit in the vehicle that provides Accessory Power for systems such as HEAT and A/C. Typically, this wire turns ON with the first position of the key, DROPS OUT WHEN CRANKING, then returns as the engine starts and runs.

(2) RED: 12V POWER INPUT WIRES (30A Fused):
Connect to both of these leads to 12V Constant Power. We recommend the BATTERY POSITIVE TERMINAL.

PINK: 12V IGNITION OUTPUT 30A:
Connect to circuit in the vehicle that provides true Ignition Power for systems such as Spark and Fuel. Typically, this wire turns ON with the second position of the key, STAYS ON WHEN CRANKING, and continues ON as the vehicle runs.
PINK WHITE: 12V MULTIFUNCTION OUTPUT 30A (JUMPER SELECTABLE):
This is an optional multi-function output wire the can be configured as a Second IGN, ACC or STARTER output. Some vehicles require more than just one IGN, ACC, or STARTER wire in order to start and run successfully. If this is the case for your particular vehicle, then use the jumper pin located under the access panel on the top of the CoolStart control module to configure this wire to suit your needs. The DEFAULT setting is IGNITION. See Jumper Pin Diagram page 24.

POWER DOOR LOCK WIRING CONNECTOR

BLUE: (-) Negative pulse for UNLOCK
RED: 12V When using external relays (TERM 86)
GREEN: (-) Negative pulse for LOCK

DETERMINING DOOR LOCK TYPE: We recommend determining the type of locking system the vehicle has before connecting any wires. Incorrect connection may result in damage to the alarm and/or vehicle locking system. Door lock information is provided as a guide. Your vehicle may differ.

Crimestopper Door Lock Accessories:
CS-6600DLM: Dual-relay plug-in module for Reverse Polarity, Positive, or Aftermarket Motors.
CS-6500DLI: Plug-in pulse inverter that converts the Negative outputs of the system to Positive type for Positive Door Lock systems.
CS-610S1: Aftermarket door lock actuator (motor).

Negative Trigger (-): Many Imports; Late model Ford & General Motors
Negative trigger door lock systems send a Negative (Ground) pulse to existing factory relays to lock and unlock the vehicle doors.

Positive Trigger (+): Many General Motors; Chrysler / Dodge / Plymouth
Positive trigger door lock systems send a Positive (12V) pulse to existing factory relays to lock and unlock the vehicle doors.

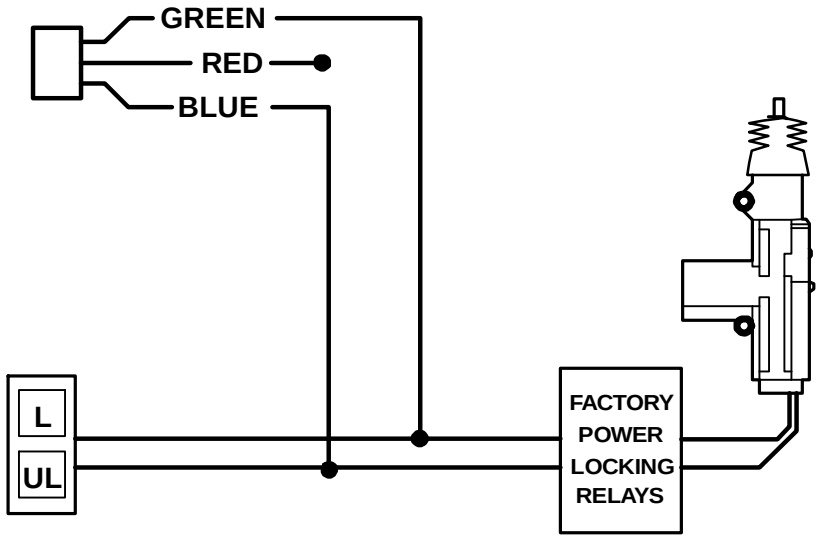
Reverse Polarity: Many Ford/Lincoln/Mercury/Dodge/Chrysler/Plymouth and early 90's GM Trucks
Reverse Polarity systems use no relays, but instead the door lock/unlock motors are controlled directly from the lock and unlock switches in the door. The lock and unlock wires rest at Negative Ground when not in use. When the lock or unlock button is pressed, one of the circuits is "Lifted" and replaced with +12V causing a lock or unlock to occur.

Single Wire (Dual Voltage): Late model Chrysler/Dodge/Plymouth Vehicles, some 2000-UP GM
Dual Voltage systems have lock/unlock switches that send varying levels of Positive voltage OR Negative ground current to the SAME wire for both lock and unlock. When the vehicle's Body Computer Module (BCM) or door lock module senses different voltages on this wire, the system will either lock or unlock. Single wire door lock systems require relays and resistors.

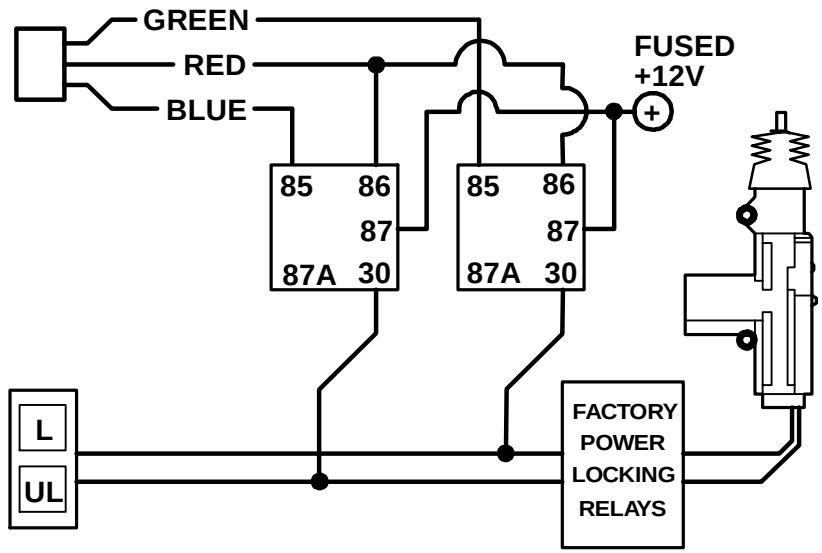
Databus Systems 2003-UP GM Trucks & SUV's, '96-04 Jeep Grand Cherokee
Databus systems send low current "Data messages" to the door lock controllers on a network in order to lock and unlock the vehicle. To install aftermarket systems in these vehicles, an interface module is required that converts the regular lock/unlock pulses into "Data messages" to allow locking & unlocking. Interface modules are sold separately.

BASIC DOOR LOCK DIAGRAMS

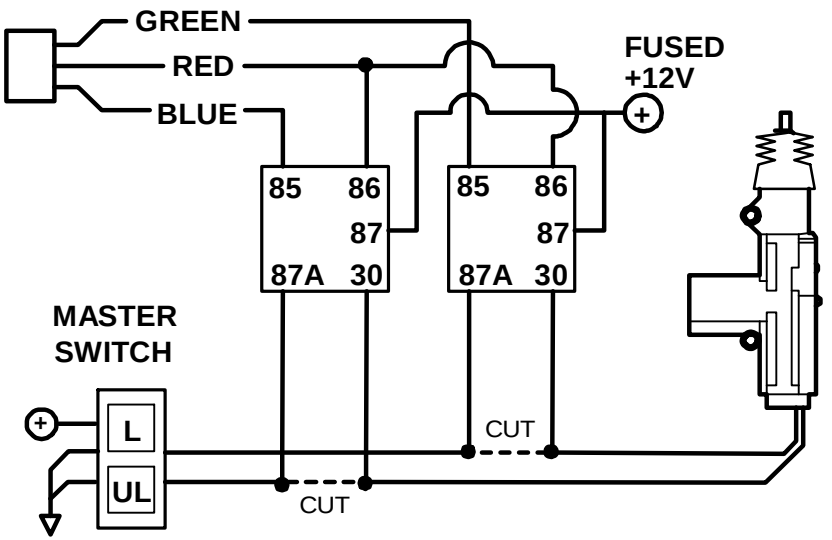
NEGATIVE TRIGGER DOORLOCK WIRING



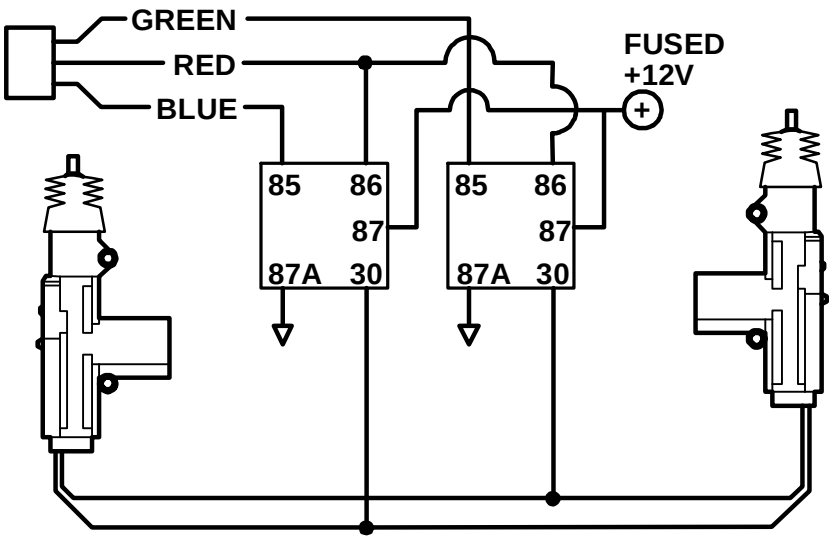
POSITIVE TRIGGER DOORLOCK WIRING



REVERSE POLARITY DOOR LOCK WIRING



AFTERMARKET MOTOR/DOOR LOCK WIRING



“SMART TACHLESS” MODE

Your CoolStart system includes a unique voltage monitor called “Smart Tachless” mode. This mode allows this unit to efficiently start an engine without the use of a tach signal wire. These modules actively monitor the voltage level of the vehicle to control the starter motor each time a remote start is requested.

IMPORTANT NOTES:

(1) SETUP may be required for the CoolStart “Smart Tachless” Mode. If your vehicle has not been at rest for a period of time (Hot engine), then you must drain the surface charge from the battery. Unplug main power harness from unit, turn HEADLIGHTS ON for 4 minutes to drain off excess surface charge on vehicle’s battery then reconnect.

(2) On the rare occasion that “Smart Tachless” mode does not operate satisfactorily, change the voltage reference level as described below, or use a different mode such as “Tach” mode, or “Timed Crank” mode.

“SMART TACHLESS” ADJUSTMENT:

In the event “Smart Tachless” over-cranks or under-cranks your starter, the settings can be changed. The purpose of adjusting the “Smart Tachless” Mode is to raise or lower the voltage reference threshold from the 93% default point. Raising or lowering this 93% point should increase or decrease your cranking time respectively. The adjustment range is from 79% to 100% in one percent increments. Follow steps below to adjust the reference level.

1. Open hood (or ground Gray hood pin wire if no hood pin is installed)
2. Turn the key to the ON position (Pink wire must be connected!)
3. Press program button 5 times, after a few seconds the unit will flash the lights and/or honk horn 5 times.
4. Carefully press the program button 21 times to get to option level 21. You must get a light flash and/or horn honk after each press. If the lights didn’t flash and/or horn does not honk, then the unit did not register your button press. Only count the light flash and/or horn honk.
5. Press the Lock Button #1 on the remote to decrease by 1% (lights will flash and/or horn honk 1X for each press); Press the Unlock Button #2 to increase by 1% (lights will flash and/or honk horn 2X for each press); Press the Trunk Button #3 to reset to 93% (lights will flash 3X). The unit will stop providing light flashes when you reach the bottom (79%) or the top (100%) of the adjustment range. If you lost track, then just press Button #3 to reset back to 93% and begin raising or lower again.
6. Turn Ignition OFF, Close hood (or un-ground the Gray hood pin wire) and check operation.

NOTE: This Smart Tachless adjustment feature is not available on the RS-00 Model that has no remote transmitters or antenna. If you must use this feature on a RS-00, then a remote and an antenna module from an RS-3 or RS-4 must be used to set the desired level. Once programmed, remove antenna.

TACH FINDER & USEFUL TIPS

TACH FINDER MODE:

This Tach Finder mode can assist in locating a Tach source for your installation. When following the steps, the unit will begin to flash the parking lights if you have the Red/White wire connected to a tach source. If lights do not flash, then try another wire until you locate a tach signal that will cause the Parking lights to flash. NOTE: On some vehicles equipped with daytime running lights, it may be difficult to see any flashing parking lights. In this case your only notification will be the slight "ticking" sound coming from the module's flashing light relay.

TACH FINDER STEPS:

1. Open hood (or ground Gray hood pin wire if no hood pin is installed)
2. Start Engine with the key. (Pink wire must be connected!)
3. Press the Program button for 2 seconds
4. Lights will begin flashing if the Red/White wire is connected to a valid tach source. If not try a different tach wire.
5. Once Tach is located then turn off engine and close hood to abort (Remove Gray hood pin wire from ground).
6. Now follow the Tach Programming steps.

TACH FINDER TIP: Cold Weather / High Idle Simulation:

The tach finder mode can also be used to help determine how your CoolStart system may operate in a cold weather situation. Once you have a valid tach source programmed into your system, follow test steps below.

1. Go into the tach finder mode.
2. You should have a consistent light flash (like directional or emergency flashers).
3. Slowly raise the RPM level on your vehicle to simulate a "warm-up idle" that is higher than the normal idle level. If and when the lights STOP flashing. Means that this is the point at which the tach signal is out of range of the system.
4. We recommend that you bring the RPM level up to between 1000 and 1500 RPMs to simulate a cold morning idle.
5. If the lights stop flashing too quickly, then we recommend using another tach source. This may help prevent the engine from starting and stalling in the morning or cold weather.

TACH PROGRAMMING & TACH SIGNALS

INTRODUCTION

Tach signals will vary in levels and frequencies depending on many factors including the type of vehicle and the source of the signal. The signals from a vehicle's injector wire and coil pack wire can vary greatly even on the same engine. The tach signal from an engine can also be affected by other sources such as electronic noise from the ignition or computer modules. Recent improvements have been made to the circuitry to allow this CoolStart system to sense a wider range of tach signals than previous models.

TACH MODE

The Tach mode provides reliable remote starting performance through engine speed (RPM) sensing. When using Tach Reference Mode, the Red/White wire is used for Tach signal [Engine RPM] input. Most modern engines include various points where the Engine Speed [Tach] or A/C signal may be obtained. Tach Signal examples: Negative (-) side of ignition coil, at the Distributor or Ignition Control Module, Coil Pack, Engine Computer, or Crankshaft Sensor. Sometimes Fuel injectors, and Alternator stator pins can be used. *These Tach Signal locations mentioned are provided as a guide. Your vehicle may differ. Some locations will NOT be a good location for Tach source due to RF noise or Computer Data.*

TACH PROGRAMMING:

1. Open hood (or ground Gray hood pin wire if no hood pin is installed.)
2. Red White wire should be connected to a valid Tach source.
3. Start engine with key. (Pink wire must be connected!)
4. Press program button 5 times, then wait for 5 light flashes and/or 5 horn honks.
5. Push program button once more. (You must get one light flash and/or honk after button is pressed.) This unit is now at option #1-Tach Learning.
6. Press the #1 Lock Button on remote transmitter. The unit will read the Tach source and flash the lights and or honk once for program confirmation. (On RS1300DP II models without remote transmitters, press the brake pedal in this step.)
7. If lights do not flash for confirmation, then try another tach source or try the tach finder to locate another wire

EXAMINING THE TACH FREQUENCY WITH A DIGITAL MULTI-METER

If you own a Digital Multi-Meter meter with a frequency counter setting, it can be helpful to measure and research the range of tach signal from your particular engine. When probing your chosen tach wire, observe the frequency reading from the meter at both the warm/low engine idle and cold/high engine idle points. Tach signals ranging between 70Hz and 700Hz are desired. If your tach wire has readings that are not in this range, the unit may not operate properly. The frequency of the tach wire in this range does not guarantee operation. If you cannot locate a good tach source from your engine, then you can switch your CoolStart system to the "Smart Tachless" or "Timed Crank".

TIMED CRANK MODE

This feature provides an easy method of starting the vehicle without locating an exact tach wire. The system uses a timed cranking output combined with the use of the Red/White tach wire as an engine ON/OFF monitor. The Red/White Tach wire must still be used in this mode of operation. THIS FEATURE MUST BE PROGRAMMED BEFORE USE! THERE ARE 2 LEVELS of programming required: First, set the system for "Timed Crank" operation, and secondly you may need to adjust the amount of cranking time. There are 4 different crank times available for use. SEE OPTION PROGRAMMING CHART ON PAGE 16-17 FOR SETTINGS.

HOW TO USE THIS FEATURE:

1. Go to the "Programmable Options" section of this manual, and turn "ON" Option #15 "Timed Crank". (It is normally on Tach Monitor)
2. With "Timed Crank" turned ON, you will STILL have to connect the Red White Tach wire to a tach source on the engine. The Red/White Tach wire becomes a simple "Engine Monitor". Although the unit will not be using the Red White wire to start the motor, it will be using this wire to determine whether the motor is running or not. This is a mandatory connection. A "crude" or "less exact" tach source can be used only when in "Time Crank" mode.
3. Using the vehicle key, start the engine a few times to get a "feel" of how long the cranking time is. Once the "Timed Crank" mode is turned on, the default cranking time is set to a default of 0.50 seconds. We recommend beginning with this setting. Try a remote start and see if the cranking is appropriate for your vehicle
4. If 0.50 seconds is not an appropriate starter cranking time, then go to Programming Option #18 and change the crank time setting to a longer value. The values are as follows: 0.5, 0.75, 1.0, and 1.5 seconds.

WARNING: This method of starting the vehicle is not as reliable as using regular "Tach" or Smart Tachless modes. This method should be used only in the event that a tach wire cannot be located using the normal tach programming and tach finder. When using this method, there may be certain operating anomalies requiring seasonal adjustments. These are, but not limited to:

- Starter may under-crank in extreme cold weather. Vehicle may not start on 1st attempt and may require a 2nd or 3rd try.
- In warm weather when your vehicle may start very quickly, "Timed Crank" mode may tend to over-crank the starter.
- The only ways to correct the above issues are to go to Option #18 and adjust the cranking time.
- When in "Timed Crank" mode, the cranking time can only be adjusted manually through option #18. When the system is in Tach or Smart Tachless modes the cranking time is controlled automatically by the microprocessor.

DIESEL GLOW PLUG DELAY

This feature provides a solution for diesel vehicles without having to connect to the Glow Plug-Wait to Start Circuit. This may be needed for various reasons. If your vehicle does not have a viable Wait to Start Circuit , or you cannot locate and identify the circuit, then change your system to Diesel Glow Plug Delay mode. You can choose from a selection of pre-cranking delay times. Once this mode is activated, the system will NO LONGER monitor the PINK glow plug input wire and will use a delay setting chosen by the installer in the option chart.

NOTES: This feature is OFF by default and must be programmed before use. Once this feature is turned ON, the Pink Glow plug input wire is not used. The Remote start unit will always wait the programmed time before cranking EVEN IF the glow plug warms up first. There are 3 different Delay times available for use: 10, 20, or 30 seconds. SEE OPTION PROGRAMMING CHART on Pages 16-17.

HOW TO USE THIS FEATURE:

1. See the Option Programming section on Pages 17-18 and change Option #19 from Monitor Glow Plug Light to one of the delayed time values. (Default setting is to always monitor the PINK Glow Plug input wire.)
2. Once this option has changed, the system will wait for the selected time before cranking.

OPTION PROGRAMMING

This CoolStart unit has over 23 programmable control options to customize the system for various operating features and installer preferences. Examine the chart on the pages 16-17 along with reading the descriptions that follow on pages 18-20. You may change one option at a time, or program multiple options in one session. If you start with the lowest option and continue on to higher options, you do not need to repeat steps #1-3 each time. For example, you can change Option #2 to “ON”, then you can continue pressing the program button to get to a higher number option and change it as well. You can only go from low to higher options numbers in one session.

OPTION PROGRAMMING CHART BEGINS ON NEXT PAGE

OPTION PROGRAMMING

To Engage Option Programming:

1. Open hood, If no hood pin switch is installed, then ground the Gray hood pin wire. Turn Key to the ON position. Do not start vehicle (***Pink wire*** *must be connected!)*
2. Press the program Valet button 5 times. Wait for the unit to flash the lights and/or horn honk 5 times.
3. Push the valet program button the number of times that corresponds to the option number desired (1-23X). You must get a light flash and/or honk after each button press. If the system did not flash the lights and/or honk, then it did not register your press. Press carefully and do not lose count.
4. When you reach the desired option #, Press button #1 Lock or #2 Unlock to change the option. (Some option numbers use ALL 4 remote buttons to select settings). You can also tap the brake pedal to toggle through the option values: Tap brake once (lights flash 1X) Tap the brake pedal again (Lights flash 2X) tap 3 or 4 times for options that have 3 or 4 values.
5. When finished, turn Ignition OFF, close hood (or un-ground Gray hood pin wire) and check for changed features.

OPTION PROGRAMMING TABLE

Option #	Option Description	TX Button #1	TX Button #2 Default Value	TX Button #3	TX Button #4
1	Engine Monitoring	Learn Tach	*Tachless*		
2	Autolock with RPM/Ignition	ON	*OFF*		
3	Door Lock Pulse Time	3 Sec.	*0.50 Sec.*		
4	Double Unlock Pulse	2 Pulses	*1 Pulse*		
5	Data Port Protocol OFA or SL Series	OFA Series	*SL Series*		
6	Remote Start & Auxiliary Output Button Press Selection	Double Button Press	*½ Second Press*	Press and Hold	
7	Horn Chirps on Remote Start	ON	*OFF*		
8	Lock After Remote Start/Abort	OFF	*ON*		

Option #	Option Description	TX Button #1	TX Button #2 Default Value	TX Button #3	TX Button #4
9	Brown wire function	Dome Light	*Trunk pop*	Press and Hold	
10	“Wake Up" pulse on Unlock (1-sec. +12V to IGN)	ON	*OFF*		
11	Manual Transmission Mode	ON	*OFF*		
12	Yellow/black wire function	Anti-Grind	*Ignition Output*		
13	Horn Chirp Confirmation	1 Press	*2 Press*		
14	Unlock with Trunk Pop	Unlock/Trunk pop	*Trunk pop only*		
15	Timed Crank or Tach Monitor	Pre-Set	*Tach Monitor*		
16	Horn Pulse (Chirp)	Long 0.04 Sec.	*Short 0.02 Seconds*		
17	OEM Interface Green input wire (RS-1300DP)	3 pulse	*1 Pulse*		
18	Starter Cranking Time (Option #15 is set to Timed Crank)	0.75 Sec.	*0.5 Sec.*	1.0 Sec.	1.5 Sec.
19	Diesel Glow Plug Delay	10 Seconds	*Monitor Glow Plug	20 Seconds	30 Seconds
20	Remote Start Engine Run Time	12 Minutes	*24 Minutes*	36 Minutes	48 Minutes
21	Smart Tachless Voltage Adjustment 79-100%	-1%	+1%	Set to 93% default	
22	Turbo Timer Mode 1 to 5 Minutes	Brake Pedal Set Mode	*Always Set Mode*	Idle Down Mode	
23	Reset Options to default (*)		*Reset All Options*		

OPTION DESCRIPTIONS:

1. Engine Monitoring:

This option sets how the unit monitors your engine. You can program either for Tach mode in which the unit uses a Tach signal (RPM) or for Tachless mode that monitors voltage level. See pages 12-15 for more information and additional steps for actual Tach learning and Tach finder modes.

OPTION DESCRIPTIONS

2. Auto Lock Unlock:
The option controls whether the doors will automatically lock/unlock on your vehicle when driving or with turning the Ignition ON/OFF. If the Auto Lock feature is turned on, and the system is in Tach mode, then the doors will lock as the engine RPM's increase (driving). If the Auto Lock feature is turned on, and the system is in Smart Tachless mode, then the doors will lock when the Ignition is turned on. When the Auto Lock feature is turned on, the system will unlock the doors when the Ignition is turned off. With this feature OFF, the system will not automatically lock or unlock the vehicle.

3. Door Lock Pulse Time:
Controls the amount of time for lock/unlock pulse. The standard setting is 0.5 for most vehicles. A 3 sec. setting is required for 1980's/90's European Vacuum or Pneumatic door lock systems.

4. Double Unlock Pulse:
The unit will send 2 unlock pulses when the #2 Unlock button is pressed. This feature may be required for interfacing this alarm with an existing Factory Keyless Entry or Alarm system in a vehicle. These systems are found on some Chrysler, Nissan, VW, Toyota, and Lexus vehicles.

5. Data Port Protocol:
This option controls the Data Port Protocol for OFA Series modules or SL Series modules. The default is set for SL Series Protocol. This option has no effect on conventional wiring of Bypass modules. Both OFA series and SL series are now 2-Way Protocol.

6. Remote Start & Auxiliary Output – Button Press Selection:
To eliminate the possibility of accidentally opening the trunk or starting the vehicle, there are (3) options for button press selection. This option will allow you to change whether the Remote starter and Trunk release activate by a:

4. Double button - ½ second presses.
5. Single ½ second press.
6. Press and Hold 2 seconds.

7. Horn Chirps on Remote Start:
This option allows the unit to provide 3 short chirps for audible confirmation of a remote start. The horn output wire must be connected for this feature.

8. Lock During After Remote Start:
This option controls whether the unit will automatically lock during and after a remote Start abort or time-out.

OPTION DESCRIPTIONS

9. Brown Output Wire Function: Trunk Pop or Dome Light Output

This option controls how the Brown output wire of the unit functions, either for Trunk pop or for Dome light illumination.

10. 12V "Wake up" Pulse:

This option allows the unit to provide a 1-second pulse on the Pink main ignition output when unlocking. The Ignition pulse serves to "Wake up" vehicle control modules or body computers that "time out" or go into power saving mode. This is required on many late model Ford vehicles with a "Slam" lock system in order to actually unlock the vehicle after it has been shut down for a short period of time.

11. Manual Transmission Mode: Authorized Crimestopper Dealers Only. Call Tech Support for Instructions.

12. Yellow Black Wire Function: (-) Negative IGN or ANTI-GRIND / Starter Kill Output

This option controls the units Negative multi-function output. Default: Negative IGN output that turns ON and stays on for the duration of the remote start. Use this wire to turn on Anti-theft bypass adapters for GM or Transponder systems. When changed to an Anti-Grind, this output activates when the Lock button on the remote is pressed and activates during a remote start. Anti-Grind is designed for use with an optional Starter disable relay (Not included).

13. Horn Chirp with Lock and Unlock- 1 or 2 Button Press (When Optional Horn Output installed):

This option allows the system to chirp the vehicle horn for Lock/Unlock confirmation on 1 button press or a 2nd press within 3 seconds. The horn output must be connected to use this feature.

14. Unlock With Trunk Pop or Trunk Pop Only:

This option controls whether the system will provide an Unlock/Disarm pulse when the Trunk release is activated from the remote control. This may be required to prevent unnecessary triggering of a factory alarm on some vehicles.

15. Timed Crank Mode or Tach Monitor:

This option controls whether the system uses a tach wire to control the starter or uses a pre-set starter cranking time.

16. Adjustable Horn Pulse:

Some vehicles require an extended horn pulse to activate the Factory horn. Use this option #16 to EXTEND the horn pulse slightly.

OPTION DESCRIPTIONS

17 OEM Interface (RS-00 Add on Model):
This option controls the input selection for the Green Negative Start Trigger Wire. When using an Aftermarket Host Alarm or Keyless Entry System: Leave the setting as “1 pulse” and connect the Green wire to the (-) Auxiliary output wire of the Alarm or Keyless Entry System. For Factory Keyless entry systems (without a (-) Negative auxiliary output), change the option to “3 Pulse” and tap the green wire into a Negative signal wire on the vehicle such as a Negative door lock wire. Pressing the Factory remote lock button 3 times will produce 3 short negative signals to trigger a remote start.

18. Pre-Set Starter Cranking Time: (Requires Option #15 to be set to Timed Crank)
This option controls the starter output cranking time. Choices are 0.5, 0.75, 1, or 1.5 seconds.

19. Diesel Glow Plug Delay:
This option controls the system’s Diesel vehicle interface. Using this option you can control whether the unit monitors the vehicle’s glow plug circuit using the Pink input wire (Default), or you may select a specific delay time before cranking. This option is helpful if you are unable to locate a glow plug signal. Just select a delay time and do not connect the Pink Glow Plug wire. Selections: 10, 20, 30 seconds, or Monitor Pink Wire (Default).

20. Remote Start Run Time:
This option controls the engine run time for remote start. Use the buttons on the remote control to set a choice of 12, 24, 36, or 48 minutes. The default setting is 24 minutes.

21. Smart Tachless Voltage Adjustment:
This option controls the voltage reference point when using smart Tachless mode. Pressing the Lock or Unlock buttons on the remote raises or lowers the reference level in 1% increments from 79%-100%. Button #3 resets the unit to the factory default reference point of 93%. The default 93% setting works for most vehicles. See page 12 for additional Smart Tachless mode information.

22. Turbo Timer Mode:
The optional Turbo Timer mode allows the CoolStart system to keep a Turbo or Turbo Diesel vehicle running for 1 to 5 minutes [selectively] after you remove the key and exit the vehicle. This is handy for turbo cool-down without the need for expensive turbo timers. This mode requires the use of an extra part called a momentary switch/button that is not included with the kit. There are (3) modes of operation for the Turbo Timer Mode. See owners manual.

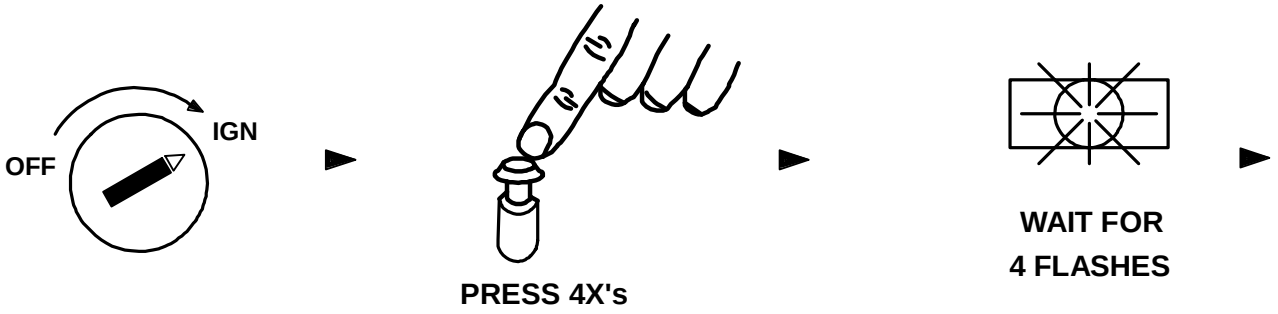
23. Option Reset: (RESTORE TO DEFAULT)
This option restores all programmable options to factory default. Go to the option 23 and press the Unlock Button #2 on the remote. The unit will flash the lights 2 times and all values will be reset to factory original settings.

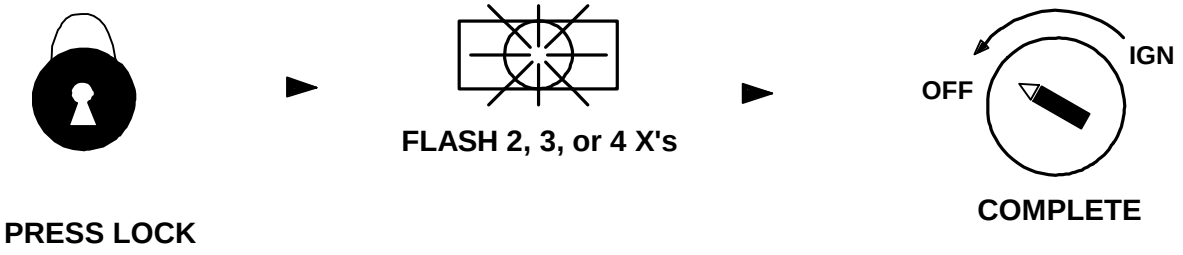
TRANSMITTER PROGRAMMING

Transmitter Programming: (Excludes RS-00 model without remotes)

Notes: Remote Transmitters/Transceivers come pre-programmed from the Factory. When re-learning remotes or adding remotes, ALL your system's remote codes must be learned at time of programming!! These systems allow storage of up to 4 different remote codes in memory.

1. Turn key to the ON position. (Do not start vehicle) *Pink wire must be connected!*
2. Press Program/Valet button 4 times. Wait for the unit to flash the parking lights and/or honk horn exactly 4 times.
3. Press Lock Button #1 of the transmitter to be learned. You should get 2 light flashes and 2 horn honks indicating the code has been learned. Now the unit is waiting for a 2nd code, so repeat this step as needed with up to 3 additional remotes. The unit will flash the lights in succession after each code learned for up to 4 codes. (3 flashes after the 2nd code, 4 flashes after the 3rd code and 0 for 4th code.) If all 4 codes are learned, the unit will automatically exit code learning mode, otherwise turn key OFF.





2 VEHICLE PROGRAMMING

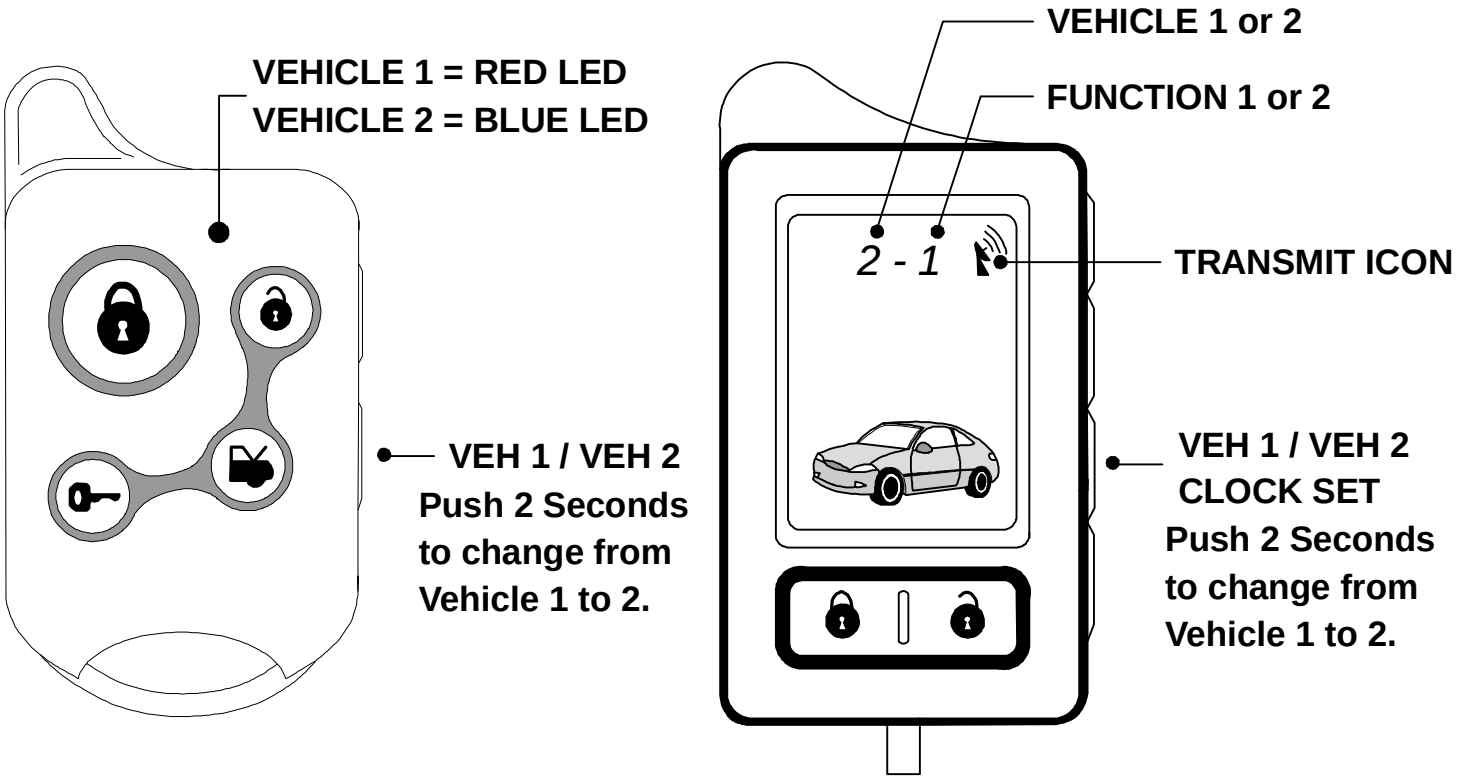
Your remotes have the ability to control a second vehicle with a Crimestopper system installed.

To set up the 2-Vehicle operation you must first program your remotes to Vehicle #2. Follow the "Transmitter Programming" steps (Pg. 12) at the second vehicle and learn YOUR remote, along with vehicle #2's existing remotes.

2-VEHCLE NOTES:

(1) You do not have to switch between Vehicle "1" and "2" to get pages from each vehicle. Your remote pager will receive pages from both cars regardless of which vehicle the pager is set to. The "1" or "2" icon will always display with each page indicate which vehicle the page originated from.

(2) When, all remote/pagers and sidekick remotes for that vehicle must be learned at the time of programming. When you program your remote at the second vehicle, that vehicle's original remote must also be programmed. Your remote should be set in Vehicle "2" and the vehicle's original remote should be set in Vehicle "1".



MANUAL TRANSMISSION MODE

MANUAL TRANSMISSION INSTALLATION: (PINK WIRE)

After programming option #11 for manual transmission mode, the pink “Glow plug” input wire becomes a Door Pin input that must be used for the manual transmission remote start procedure. This wire is a negative input only. If you have a positive door trigger you must use a relay to change it over to a negative trigger. Connect the pink wire to the dome light circuit of the vehicle just as you would for a security system. A door opening will now cancel a remote start that was previously “set-up” by the user. The Door pin is a safety input to cancel a remote start

MANUAL TRANSMISSION EXIT PROCEDURE:

1. With engine running, vehicle in neutral, set parking brake, press and release remote start button on transmitter. The remote starter module will turn on and takeover operation of the vehicle.
2. Remove key, exit vehicle (remote starter unit must “SEE” door opened, then closed.)
3. **For Idle Down feature:**
   press the lock button within 10 seconds of closing the door. The doors will lock and engine will remain running and for the programmed run time or until you return.
4. **For Manual Start feature:**
   WAIT at least 10 seconds after door closes to press the Lock button on the remote. The system will now lock the doors and shut down the engine. From this point, the unit will start the engine unless a door is opened or Ignition is turned on [either function will cancel a remote start this sequence.

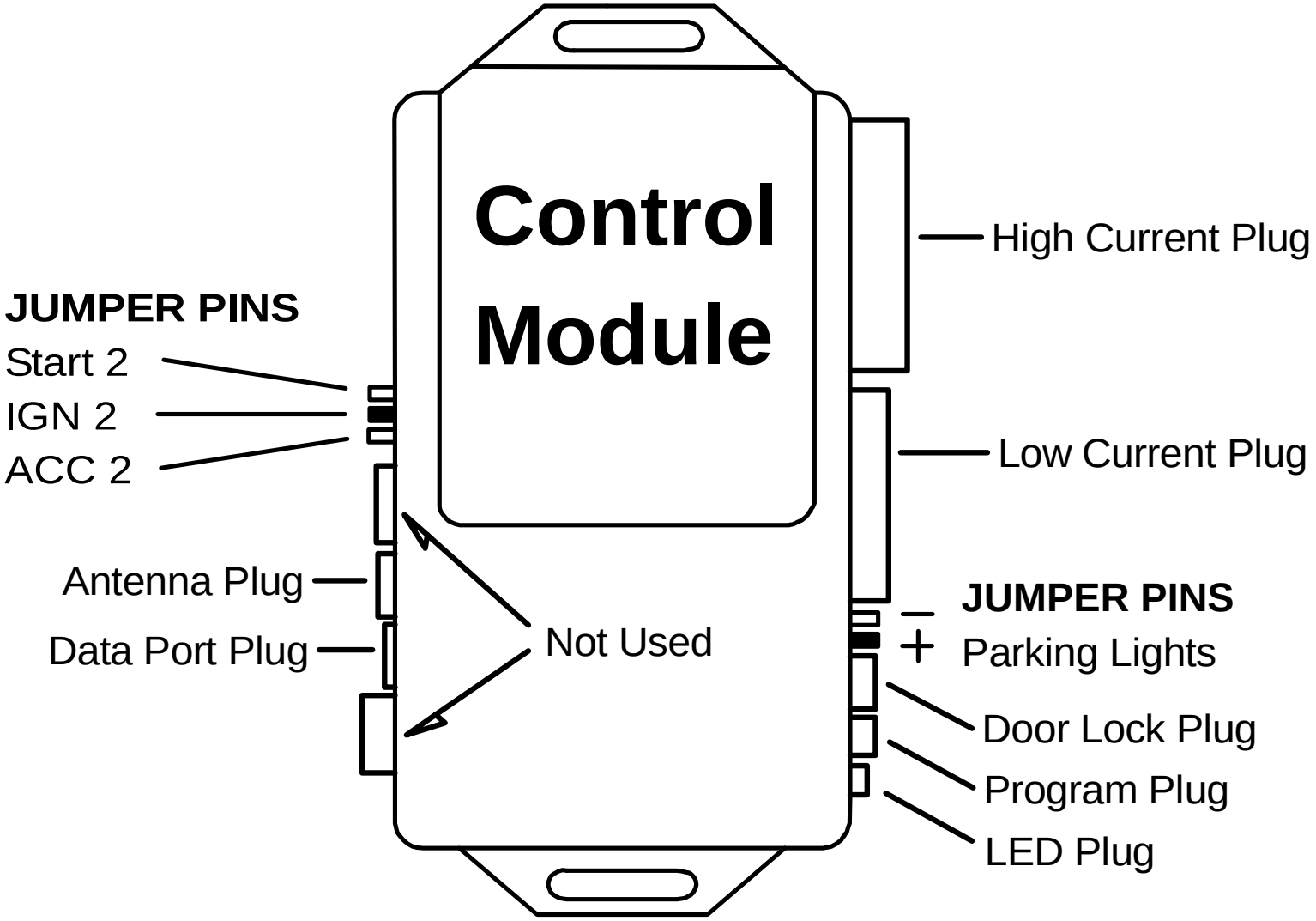
OPERATION NOTES:

- The 10-second time threshold activates when the door CLOSES.
- Pressing the Lock button before 10 seconds, will provide Idle-Down only.
- Pressing the Lock button after 10 seconds will turn off the engine and set the unit up for the remote start feature.
- If the Ignition is turned on or Door is opened after performing steps 1-4 above, the unit will reset.

Note: Turbo Timer Mode doesn’t work in Manual Transmission Mode.

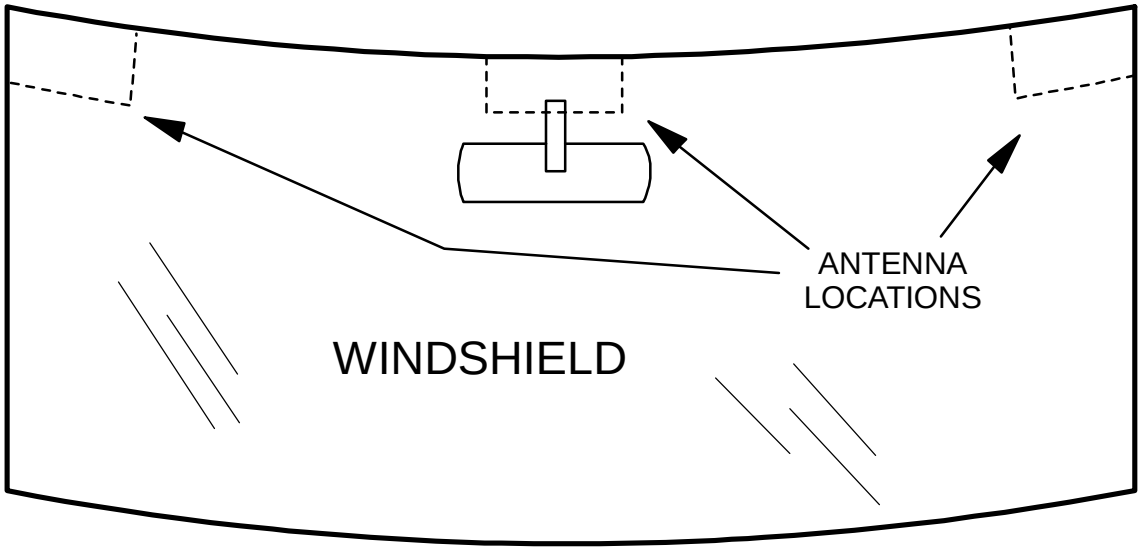
JUMPER PIN DIAGRAMS

Jumper pins are used to change/configure the operation of the on board multi-function output PINK WHITE wire and the Parking Light WHITE wire. See the diagrams below for Jumper Pin configurations.



ANTENNA DIAGRAM

Antenna should be located at top of widow at least one inch away from metal surface.



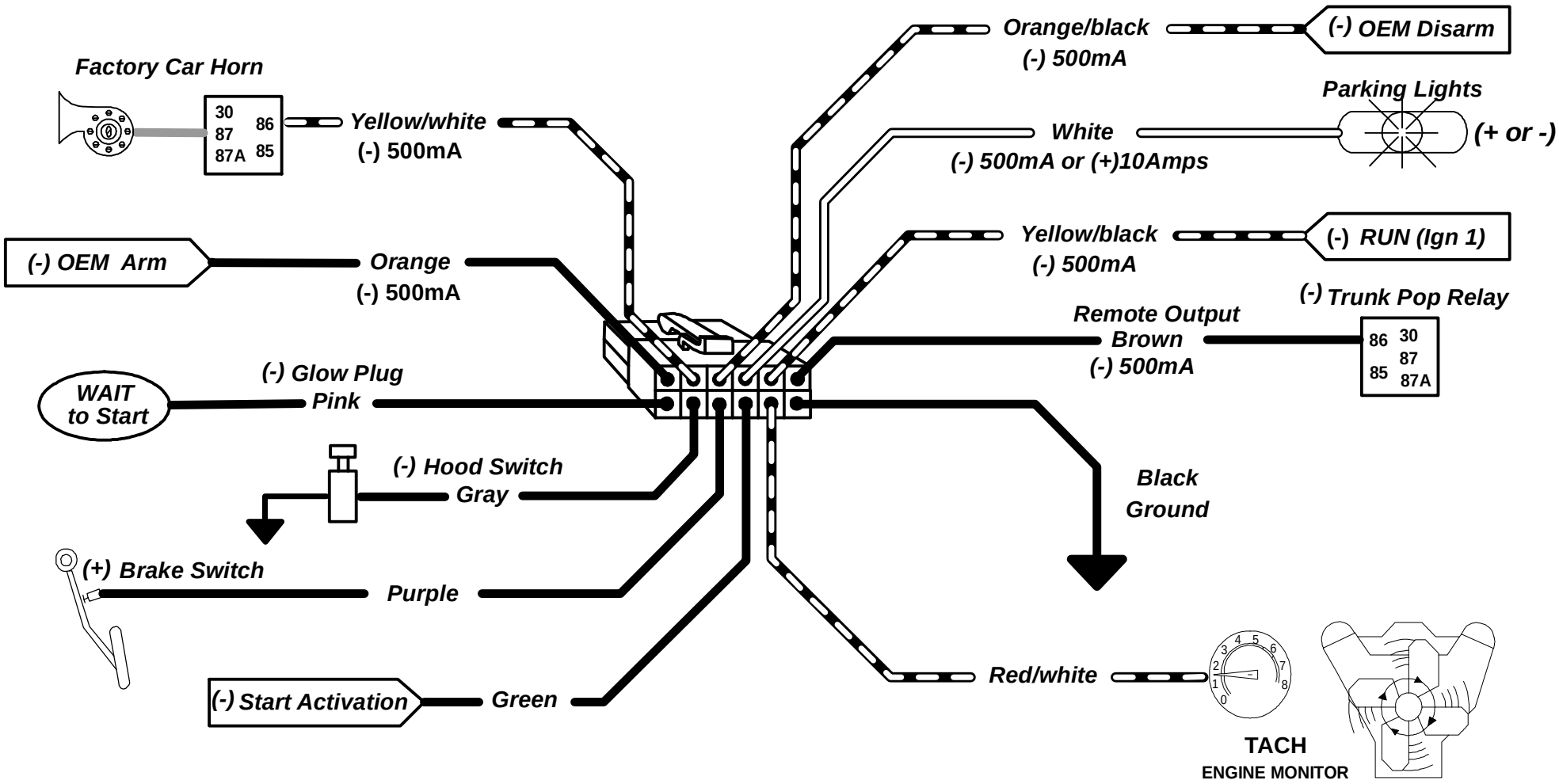
DATA PORT

This unit includes DP Technology that will allow you to directly Plug-In our Data Port Bypass Modules. There are 2 types of Protocol, OFA series and SL series modules. The default is set for SL series Protocol. Please refer to Databus module manual for detail instructions. The Data Port Protocol must be programmed for the correct module.

See Option # 5 on page 16

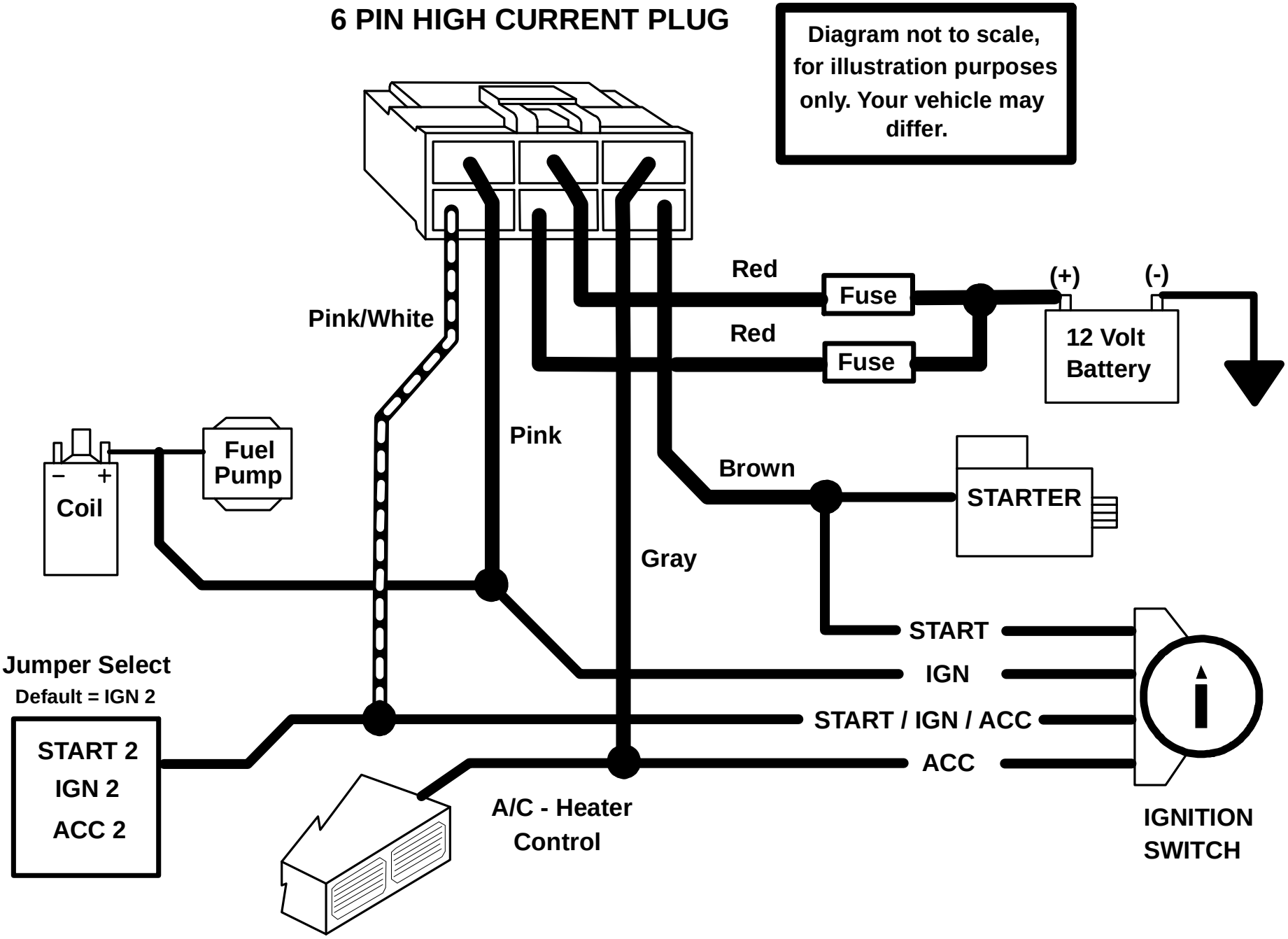
LOW CURRENT PLUG

12 PIN LOW CURRENT PLUG



HIGH CURRENT PLUG

6 PIN HIGH CURRENT PLUG



REMOTE START DIAGNOSTICS

If the system flashes the parking lights one to three times and doesn't attempt remote, it means the following:

1 Parking Light Flash = Problem with Brake Switch.
2 Parking Light Flashes = Problem with Hood Switch.
3 Parking Light Flashes = Valet Service Mode.
7 Parking Light Flashes = Manual Transmission Error.

CRIMESTOPPER
www.crimestopper.com
Phone (800) 998-6880
FAX (805) 581-9500
© 2008 Crimestopper Security Products

TechWeb
ONLINE TECHNICAL SUPPORT
www.crimestopper.com